

REMARKS

Applicants request favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Claims 1-4, 7-12, 21-24, and 26-32 were pending in the application and were rejected in the Office Action. By way of this Amendment, Applicants have amended claims 1 and 29 and, therefore, claims 1-4, 7-12, 21-24, and 26-32 are respectfully resubmitted for further consideration.

This Amendment raises no new issues that would warrant a further search and/or consideration. Entry and consideration of this Amendment is, therefore, both warranted and earnestly solicited.

1. Rejection of Claims 1-4, 7-12, 21-24, and 26-36 under 35 U.S.C. § 102(f)

The Examiner rejected claims 1-4, 7-12, 21-24, and 26-32 under 35 U.S.C. § 102(f) based on the continued inclusion of David Kinder as an inventor. As discussed in the Reply filed on February 16, 2006, this issue will be remedied, upon receiving a favorable response from the Examiner regarding the allowability of the claims. Specifically, this issue will be remedied by filing a continuation application under 37 C.F.R. § 1.53(b) along with a copy of the previously signed Oath and Declaration and a statement that Mr. David M. Kinder is to be removed as an inventor, as provided in 37 C.F.R. § 1.63(d)(2). As a result, only Messrs. Philip W. Tweeton and Randy J. White will be identified as inventors.

2. Claim Rejections under 35 U.S.C. §§ 102(b), 103(a)

Under 35 U.S.C. § 102(b), the Examiner again rejected claims 1, 2, 7-10, 12, 21, 22, 24, and 27-32 as allegedly being anticipated by U.S. Patent No. 5,876,638 (“Sunder”). Similarly, under 35 U.S.C. § 103(a), the Examiner also again rejected: (i) claims 3 and 23 as allegedly being obvious when considering Sunder in view of U.S. Patent No. 6,511,051 (“Kessler”); (ii) claim 4 as allegedly being obvious when considering Sunder in view of U.S. Patent No. 5,413,741 (“Buchholz”); and (iii) claims 11 and 26 as allegedly being obvious when considering Sunder in view of Cooling Tower Institute 1993 Annual Meeting (“CTI”). For the following reasons, Applicants respectfully continue to traverse these rejections.

In the “Response to Arguments” section of the Office Action, which cross-references numbered section 3 of the Office Action, the Examiner states:

It should also be noted that it is well known within the art to utilize a packing element of a given construction within various contact assemblies, including cross-flow and counter-flow configuration. Note [U.S. Patent Nos. 4,518,544 (“Carter”), 5,023,022 (“Phelps”), 5,104,588 (“Kinney”), and 5,474,832

(“Massey”)], which demonstrate the well known nature of using a given fill within various flow regimes, including cross-flow and counter-flow [sic] contactors.

See Office Action at p. 3 (U.S. references substituted for “the newly cited references”). With all due respect, if the Examiner intends to cite any of Carter, Phelps, Kinney, and/or Massey in conjunction with Sunder, such a rejection must be made, upon a showing of adequate motivation to combine, under 35 U.S.C. § 103(a). As currently stated, independent claims 1 and 29 stand rejected as being anticipated solely by Sunder and, therefore, only Sunder will be addressed with respect to these claims.

As amended herein, claim 1 (*i.e.*, the claim from which claims 2-4, 7-12, 21-24, and 26-28 depend) recites a cooling media pack that includes, among other possible things (italic and underline emphasis added):

a plurality of alternating sheets each of which comprises:
a plurality of ridges; and
a plurality of voids,
wherein each sheet has an undulating shape,
wherein the ridges of every other sheet are oriented substantially in a first direction,
wherein the ridges of the adjacent sheets are oriented substantially in a different direction,
wherein each of the ridges comprises a peak and a trough,
wherein the peaks of one sheet are joined to the troughs of a sheet adjacent to it,
wherein the ridges of each of the sheets are oriented at an angle between about 20° and 30°, with respect to the horizontal, and
wherein the cooling media is configured, by: (a) a ratio of the area occupied by the voids to the surface area of the sheet; and (b) an angle at which the ridges are oriented with respect to the horizontal, *to be used, in both a horizontal orientation and a vertical orientation, in: (i) counter-flow film-fill cooling towers; (ii) counter-flow splash-fill cooling towers; and (iii) cross-flow splash-fill cooling towers.*

Similarly, as amended claim 29 (*i.e.*, the claim from which claims 30-32 depend) recites a cooling media pack that includes, among other possible things (italic and underline emphasis added):

a plurality of alternating sheets each of which comprises:
a plurality of ridges; and
a plurality of voids,
wherein each sheet has an undulating shape,
wherein the ridges of every other sheet are oriented substantially in a first direction,
wherein the ridges of the adjacent sheets are oriented substantially in a different direction,
wherein each of the ridges comprises a peak and a trough,

wherein the peaks of one sheet are joined to the troughs of a sheet adjacent to it,

wherein the ridges of each of the sheets are oriented at an angle between about 20° and about 50°, with respect to the horizontal, and

wherein the cooling media is configured, by: (a) a ratio of the area occupied by the voids to the surface area of the sheet; and (b) an angle at which the ridges are oriented with respect to the horizontal, to be used, in both a horizontal orientation and a vertical orientation, in: (i) counter-flow film-fill cooling towers; (ii) counter-flow splash-fill cooling towers; and (iii) cross-flow splash-fill cooling towers.

As hereafter explained, Sunder, Kessler, Buchholz, and CTI (standing alone or in combination) fail to teach or suggest such cooling media packs.

In the Reply that was filed on February 16, 2006, Applicants noted that none of Sunder, Kessler, Buchholz, and CTI taught or suggested a cooling media pack that is configured to be used in both counter-flow and cross-flow cooling towers. To cure this deficiency, the Examiner makes reference to, without explicitly applying, Carter, Phelps, Kinney, and Massey. As Carter, Phelps, Kinney, and Massey have not been officially cited, they can not be used to cure the deficiencies of Sunder, Kessler, Buchholz, and CTI. Accordingly, a discussion responsive to Carter, Phelps, Kinney, and Massey is currently unwarranted. As a result, the claims remain allowable over the stated rejections for the reasons stated in Reply that was filed on February 16, 2006.

In addition to the foregoing, Applicants respectfully note that claims 1 and 29, as amended herein, additionally recite that the cooling media pack is configured to be used in both cross-flow and counter-flow cooling towers and that such use may be in both vertical and horizontal orientations. *See ¶ [0045].* Accordingly, to the extent that the Examiner may issue a further rejection, it is respectfully requested that the Examiner take this additional recitation into account.

In light of the foregoing, it is clear that none of Sunder, Kessler, Buchholz, and CTI teaches or suggests a cooling media pack that is configured to be used: (a) in both counter-flow and cross-flow cooling towers; and (b) in both vertical and horizontal orientations in such counter-flow and cross-flow cooling towers. As a result, Sunder, Kessler, Buchholz, and CTI (standing alone or in combination) can not be used to reject claims 1 and 29, or any claim dependent thereon, under 35 U.S.C. §§ 102(b), 103(a). Moreover, as claims 2-4, 7-12, 21-24, and 26-28 depend from claim 1 and as claims 30-32 depend from claim 29, each of these dependent claims is also allowable over Sunder, Kessler, Buchholz, and CTI (standing alone or in combination). Accordingly, Applicants respectfully request a withdrawal of the rejections of claims 1-4, 7-12, 21-24, and 26-32 under §§ 102(b), 103(a).

CONCLUSION

Claims 1-4, 7-12, 21-24, and 26-32 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

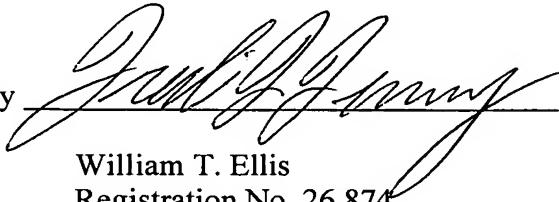
Respectfully submitted,

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HEREWITH, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HEREWITH, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.